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Magnetic Properties of K-absorbing zeolite LTA

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A ferromagnetic (FM) like transition around 7K in potassium-loaded zeolite LTA was reported by Nozue and coworkers in 1992 and 1993 (Phys. Rev. Lett. **68** (1992)3789). Recently, the present authors succeeded in this confirmation and also found a coexistence of a structural modulation and the ferromagnetism (Y. Maniwa, *et al.*, J. Phys. Soc. Jpn. **68** (1999) 2902). The ^{29}Si -NMR measurements on several samples of potassium loaded zeolite LTA were carried out and the magnetic phase diagram for K_x/K_{12} -LTA was determined by NMR (H. Kira, *et al.*, to be published). The simulation strongly suggested that there are at least two types of cluster with different magnetic moment. We will discuss the model of electronic state and magnetic state of K_x/K_{12} -LTA in the conference.